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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No.		112047-0087
First Inventor	Alexander T. Garthwaite	
Title	Concurrent Remembered-Set Insertion in a Generation Managed by the Train Algorithm	
Express Mail Label No.		EV336757736US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

- Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
- Applicant claims small entity status.  
See 37 CFR 1.27.
- Specification [Total Pages 43]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
- Drawing(s) (35 U.S.C.113) [Total Sheets 28]
- Oath or Declaration [Total Pages 2]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 CFR 1.63 (d))  
(for a continuation/divisional with Box 18 completed)
  - i.  DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- Application Data Sheet. See 37 CFR 1.76

## ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a.  Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i.  CD-ROM or CD-R (2 copies); or
    - ii.  paper
  - c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATIONS PARTS

9.  Assignment Papers (cover sheet & document(s))
10.  37 C.F.R. §3.73(b) Statement  Power of (when there is an assignee) Attorney
11.  English Translation Document (if applicable)
12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations
13.  Preliminary Amendment
14.  Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15.  Certified Copy of Priority Document(s) (if foreign priority is claimed)
16.  Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17.  Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation  Divisional  Continuation-in-part (CIP)

of prior application No: \_\_\_\_\_ /

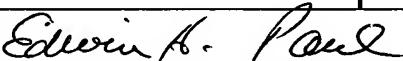
Prior application information: Examiner \_\_\_\_\_

Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 17. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number or Bar Code Label (Insert C)			<input type="checkbox"/> Correspondence address below (Insert C)		
Name	Edwin H. Paul PATENT TRADEMARK OFFICE 24267				
Address	Cesari and McKenna 88 Black Falcon Avenue				
City	Boston	State	MA	Zip Code	02210
Country	U. S. A.	Telephone	(617) 951-2500		Fax (617) 951-3927

Name (Print/Type)	Edwin H. Paul	Registration No. (Attorney/Agent)	31,405
Signature			Date October 6, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

16834 U.S. PTO  
107679559



100603

17712 U.S. PTO  
10/06/03

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# FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

 Applicant Claims Small Entity Status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

Complete if Known	
Application Number	Not Yet Assigned
Filing Date	October 6, 2003
First Named Inventor	Alexander T. Garthwaite
Examiner Name	Not Yet Assigned
Group Art Unit	Not Yet Assigned
Attorney Docket No.	112047-0087

## METHOD OF PAYMENT (check all that apply)

Check  Credit Card  Money  Other  None  
 Deposit Account Order

Deposit Account **03-1237**  
 Number  
 Deposit Account **Cesari and McKenna, LLP**  
 Name

The Commissioner is authorized to: (check all that apply)  
 Charge any deficiency or  
 Charge fee indicated below  Credit any overpayments  
 Charge any additional fee(s) during the pendency of this application  
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	770
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)		(\$)		770	

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Extra Claims below	Fee from Claims below	Fee Paid
Total Claims <b>28</b>	- 20** = <b>8</b> x <b>18</b> = <b>144</b>	
Independent Claims <b>4</b>	- 3** = <b>1</b> x <b>86</b> = <b>86</b>	
Multiple Dependent		<b>0</b>

Large Entity	Small Entity	Fee Description
1202	18	2202 9
1201	84	2201 42
1203	280	2203 140
1204	84	2204 42
1205	18	2205 9
SUBTOTAL (2)		(\$)
230		

\*or number previously paid, if greater; For Reissues, see below

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051	130	2051 65 Surcharge - late filing fee or oath	
1052	50	2052 25 Surcharge - late provisional filing fee or cover sheet	
1053	130	1053 130 Non-English Specification	
1812	2,520	1812 2,520 For filing a request for ex parte reexamination	
1804	920	1804 920* Requesting publication of SIR prior to Examiner action	
1805	1,840	1805 1,840* Requesting publication of SIR after Examiner action	
1251	110	2251 55 Extension for reply within first month	
1252	410	2252 205 Extension for reply within second month	
1253	930	2253 465 Extension for reply within third month	
1254	1,450	2254 725 Extension for reply within fourth month	
1255	1,970	2255 985 Extension for reply within fifth month	
1401	320	2401 160 Notice of Appeal	
1402	320	2402 160 Filing a brief in support of an appeal	
1403	280	2403 140 Request for oral hearing	
1451	1,510	1451 1,510 Petition to institute a public use proceeding	
1452	110	2452 55 Petition to revive - unavoidable	
1453	1,300	2453 650 Petition to revive - unintentional	
1501	1,300	2501 650 Utility Issue fee (or reissue)	
1502	470	2502 235 Design Issue fee	
1503	630	2503 315 Plant Issue fee	
1460	130	1460 130 Petitions to the Commissioner	
1807	50	1807 50 Processing fee under 37 CFR 1.17(q)	
1806	180	1806 180 Submission of Information Disclosure Stmt	
8021	40	8021 40 Recording each patent assignment per property (times number of properties)	40
1809	750	2809 375 Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810 375 For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801 375 Request for Continued Examination (RCE)	
1802	900	1802 900 Request for expedited examination of a design application	
Other fee (specify)			
Other fee (specify)			
SUBTOTAL (3)		(\$)	40

\*Reduced by Basic Filing Fee Paid

## SUBMITTED BY

## Complete (if applicable)

Name (Print/Type)	Edwin H. Paul	Registration No. (Attorney/Agent)	31,405	Telephone	(617) 951-2500
Signature	Edwin H. Paul			Date	October 6, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS

PATENTS  
112047-0087  
P8316

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re The Application of: )  
Alexander T. Garthwaite )  
 )  
Serial No.: Not Yet Assigned )      Examiner: Not Yet Assigned  
 )  
Filed: October 6, 2003 )      Art Unit: Not Yet Assigned  
 )  
For: Concurrent Remembered-Set Inser- )  
tion in a Generation Managed by the )  
Train Algorithm )  
 )  
 )  
Cesari and McKenna, LLP  
88 Black Falcon Avenue  
Boston, MA 02210  
October 6, 2003

**EXPRESS-MAIL DEPOSIT**

“Express Mail” Mailing-Label Number:      EV336757736US

The following papers are being deposited with the United States Postal Service  
“Express Mail Post Office to Addressee” service pursuant to 37 C.F.R. §1.10:

Patent Application ( 43 pages including 28 claims )  
 Power of Attorney       Oath or Declaration  
 Fee Transmittal Letter       Utility Patent Application Transmittal  
Letter  
 Assignment With Recordation Form       Informal Drawing ( 28 sheets )  
Cover Sheet  
 Check No. 27316 for \$1,040.00       Letter to Official Draftsman  
 Return Receipt Postcard       Nonpublication Request

**REQUEST AND CERTIFICATION  
UNDER  
35 U.S.C. 122(b)(2)(B)(i)**

First Named Inventor	Alexander T. Garthwaite
Title	Concurrent Remembered-Set Insertion in a Generation Managed by the Train Algorithm
Atty Docket Number	112047-0087

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

October 6, 2003

\_\_\_\_\_  
Date

*Edwin H. Paul*

\_\_\_\_\_  
Signature

Edwin H. Paul, Reg. No 31,405

\_\_\_\_\_  
Typed or printed name

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

**Burden Hour Statement:** This collection of information is required by 37 CFR 1.213(a). The information is used by the public to request that an application not be published under 35 U.S.C. 122(b) (and the PTO to process that request). Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 6 minutes to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.